

No. 675,738.

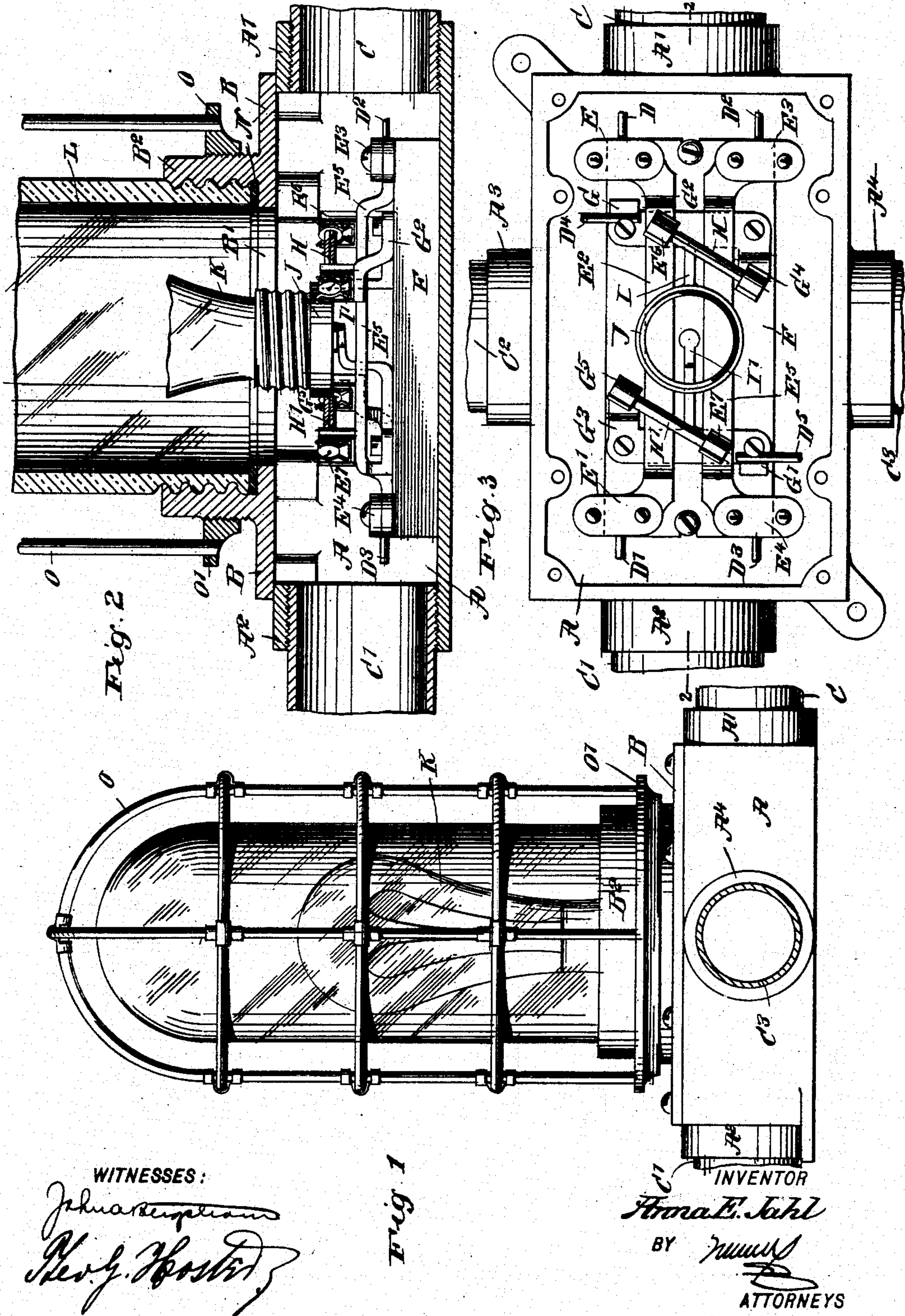
Patented June 4, 1901.

A. E. JAHL.

COMBINATION WATER TIGHT JUNCTION BOX, RECEPTACLE, AND FIXTURE.

(Application filed Mar. 9, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

ANNA E. JAHL, OF NEW YORK, N. Y.

COMBINATION WATER-TIGHT JUNCTION-BOX, RECEPTACLE, AND FIXTURE.

SPECIFICATION forming part of Letters Patent No. 675,738, dated June 4, 1901.

Application filed March 9, 1901. Serial No. 50,459. (No model.)

To all whom it may concern:

Be it known that I, ANNA E. JAHL, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Combination Water-Tight Junction-Box, Receptacle, and Fixture, of which the following is a full, clear, and exact description.

The invention relates to the transmission of electric currents; and its object is to provide a new and improved combination water-tight junction-box, receptacle, and fixture which is simple and durable in construction, more especially designed for use in places subject to considerable moisture, (steam or water,) as along the shore, marine vessels, subterranean and submarine work, and arranged to insure at all times proper connection and in case of an overload in the main current prevent breakage of the electric lamp by burning out a fuse, which can be cheaply and readily replaced.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement. Fig. 2 is an enlarged sectional side elevation of the same on the line 2 2 in Fig. 3, and Fig. 3 is a plan view of the same with the cover removed.

The improved device consists, essentially, of a box A, preferably made of metal and provided with a cover B for closing the box and for giving access thereto for adjustments and repairs whenever necessary. The ends of the box A are provided with threaded bosses A' A², in which screw the conduits C C', through which extend the main-line wires D D' and D² D³, the ends of the main-line wires D D' being connected to binding-posts E E', secured on a base F, of porcelain or other insulating material, screwed or otherwise attached to the bottom of the box A. The ends of the main-line wires D² D³ are connected to binding-posts E³ E⁴, likewise held on the base F,

and said sets of binding-posts E E' are connected with each other by a metallic bar E², and the binding-posts E³ E⁴ are connected with each other by a bar E⁵. Branch-line wires D⁴ D⁵ extend through branch conduits C² C³, respectively screwed or otherwise secured in bosses A³ A⁴ on the sides of the box A, and the ends of the branch wires D⁴ D⁵ are secured on binding-posts G G', respectively secured on the base F, separate from the binding-posts E E' and E³ E⁴. The binding-posts G G' are connected with plates G² G³, secured to the base F and carrying at their free ends clamps G⁴ G⁵, respectively, for the glass-tube-covered fuses H H', connected with clamps E⁶ E⁷, respectively, of which the clamp E⁶ forms part of the connecting-bar E² and the clamp E⁷ forms part of the connecting-bar E⁵.

By the arrangement described the main current through the main wires D D' passes through the binding-posts E E' and the connecting-bar E² and also passes through the clamp E⁶, fuse H, clamp G⁴, and plate G² to the binding-post G, and then to the branch wire D⁴ to its destination, and in a similar manner the main-line current passes through the wires D² D³, the binding-posts E³ E⁴, and the connecting-bar E⁵, and also passes through the clamp E⁷, fuse H', clamp G⁵, plate G³ to the binding-post G', and then by the wire D⁵ to its destination.

Now it is evident that in case one of the main-line currents far exceeds a normal strength then no damage occurs to the devices connected with the branch-line circuits, as the fuses H or H' burn out before the current can pass to the branch-line wires.

The plate G² is provided with a metallic arm I, connected with a metallic socket J, for carrying an electric lamp K of any approved construction, said electric lamp also making connection with the arm I', attached to the plate G², so that when the lamp K is secured in the socket then the circuit for the lamp is closed, the current passing through the arm I and socket J to one pole of the filament, the other pole of which is electrically connected to the arm I' and the plate G³. The lamp K extends upward through an opening B' in the cover B, and the bulb of the lamp is inclosed within a globe L, screwing at its lower end

upon an internal thread on a boss B² of the cover B, and this globe L is contained within a guard O, preferably made of wires, provided at their lower ends with a ring O' screwing on an external thread on the boss B².

When using the device as a water-tight junction-box only, then the lamp K, the globe L, and the guard O are dispensed with and the opening B' in the cover B is closed by a suitable cap screwed upon the boss B². When the device is in this condition, it can be utilized either as a four-way junction-box or as a three-way junction-box. In the latter case one of the bosses A³ or A⁴ is closed by a suitable plug.

When using the device as a steam or water fixture, then the lamp K is screwed to the socket J and the globe L is screwed in position on the boss B², the inner end of the globe abutting against a gasket N, so as to make the box water-tight at this particular joint. If the globe is to be guarded, then the guard O is screwed on the boss B², as previously explained, and shown in the drawings.

In case it is desired to use the device as a steam and water tight receptacle for electric light, heat, or power then an attachment-plug is screwed to the socket J, the wires being attached to the plug and leading to a cap having a rubber gland leading to the boss B². Any desired combination can be made to form the device into a junction-box fixture or into a junction-box and receptacle or the like.

Having thus fully described my invention,

I claim as new and desire to secure by Letters Patent—

1. A device of the class described, comprising a box having a removable cover, an insulating-base in said box, a set of connected main-line binding-posts, a set of connected branch-line binding-posts, a socket connected with said set of connected branch-line binding-posts, an electric lamp adapted to engage said socket and extending with its bulb through an opening in the cover, and a globe removably secured to the cover and inclosing said electric lamp, as set forth.

2. A device of the class described, comprising a box having a removable cover, an insulating-base in said box, a set of connected main-line binding-posts, a set of connected branch-line binding-posts, a socket connected with said set of connected branch-line binding-posts, an electric lamp adapted to engage said socket and extending with its bulb through an opening in the cover, a globe removably secured to the cover and inclosing said electric lamp, and a guard removably secured to the cover and surrounding said globe, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANNA E. JAHL.

Witnesses:

F. S. GASSAWAY,
W. B. JONES.